

ABSTRACT

Method and apparatus are provided for preventing faulty commercial-off-the-shelf (COTS) peripherals or I/Os from disabling the bus to which they are connected. The apparatus has isolators coupled to the bus and the I/Os. A controller is coupled between the interfaces, a processor and memory, operating such that an I/O cannot transfer data to the bus without permission from the bus. Isolation memory keeps I/O and bus messages separate. I/O messages are checked before being sent to the bus. The method comprises: determining if there is a message for the peripheral, temporarily storing the message, determining if the message is for output or input, and if for output, sending it to the peripheral, and if for input, requesting and receiving it from the peripheral, temporarily storing and checking it, and transferring it to the bus only if valid. This prevents a failed I/O or peripheral from disabling the bus.